

PATENT CLAIMS

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1. Thermosettable adhesive comprising a thermosettable polymer component, a thermoformable polymer component, an effective amount of a heat-activatable and/or photoactivatable curing system for curing the thermosettable polymer component, and from 0.5 -20 wt.% with respect to the mass of the thermosettable adhesive of one or more hydroxides and/or hydroxyoxides of Al, Mg and/or Zr.
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2. Thermosettable pressure-sensitive adhesive according to claim 1.
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3. Thermosettable adhesive according to any of claims 1-2 wherein the thermoformable polymer component comprises one or more polyacrylates and/or polyesters.
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4. Thermosettable adhesive according to any of claims 1-3 wherein the thermosettable polymer component comprises one or more epoxy resins and/or epoxy monomers or oligomers.
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5. Thermosettable adhesive according to any of claims 1-4 which is obtainable by photopolymerization of a precursor comprising
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- (i) from about 25 to 60 wt.% of a photopolymerizable, optionally partly prepolymerized mixture comprising at least one acrylic acid ester of a non-tertiary alcohol, and at least one reinforcing, copolymerizable monomer,
- (ii) from about 8 to 60 wt.% of one or more epoxy resins and/or epoxy monomers or oligomers containing no photopolymerizable groups,
- (iii) from 0 to about 15 wt.% of one or more additional thermoformable polymers selected from the group comprising polyvinylacetate,

poly(ethylene vinyl acetate), polyacetals, polyesters and/or poly(caprolactones),

(iv) from about 0.1 to 10 wt.% of a heat-activatable curing system for the epoxy component (ii),

5 (v) from about 0.005 to 3wt.% of a photoinitiator for the acrylate component (i), and

(vi) from about 0.1 to 20 wt.% of one or more hydroxides and/or hydroxyoxides of Al, Mg and/or Zr

10 wherein all weight percentages refer to the mass of the thermosettable adhesive.

6. Thermosettable adhesive according to claim 5 wherein the acrylate component (i) additionally comprises at least one hydroxy-substituted acrylic ester of a non-tertiary alcohol.

7. Thermosettable adhesive according to any of claims 1-6 which is obtainable by extrusion of a mixture comprising

(i) from about 2 to 80wt.% of one or more polyesters,

(ii) from about 5 to 80 wt.% of one or more epoxy resins and/or epoxy monomers or oligomers,

(iii) from 0 to 15 wt.% of one or more additional thermoformable polymers selected from the group comprising polyacrylate, polyvinylacetate, poly(ethylene vinyl acetate), polyacetals and/or poly(caprolactones),

(iv) an effective amount of one or more heat-activatable and/or photoactivatable curing systems for the epoxy component (ii),

v) from about 0.1 to 20 wt.% of one or more hydroxides and/or hydroxyoxides of Al, Mg and/or Zr,

wherein the onset temperature of the curing reaction of the epoxy component (ii) is higher than the extrusion temperature and wherein all weight percentages refer to the mass of the thermosettable adhesive.

5 8. Thermosettable adhesive tape comprising at least one layer of a thermosettable adhesive according to any of claims 1-7 wherein such layer has at least one exposed surface and optionally comprises a backing.

10 9. Use of the thermosettable adhesive of any of claims 1-7 for melt sealing or bonding applications.

15 ~~10. A thermosettable adhesive comprising~~
~~(i) a thermosettable polymer selected from the group consisting of epoxy resins, epoxy monomers and epoxy oligomers;~~
~~(ii) a thermoformable polymer selected from polyacrylate homopolymers and copolymers;~~
~~(iii) an effective amount of curing agent for the thermosettable polymer; and~~
~~(iv) 0.1 to 20 weight percent of a metal hydroxide selected from the group consisting of aluminum hydroxides and aluminum hydroxyoxides.~~

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